Minutes of HNF Technical Committee
October 11, 1994
St. Petersburg Beach, Florida

1. Opening remarks and introductions

Don Tolmie of Los Alamos National Lab, Chair of the Technical Committee, opened the meeting at 1:00 PM on Tuesday. Charles Brill and AMP were thanked for hosting the meeting. Mike Barron of Essential Communications volunteered to act as Secretary. (Don Tolmie edited these minutes, and takes responsibility for any errors.)

2. Prioritization of Technical Committee Items

The agenda items had been voted on and prioritized in the HNF plenary immediately preceding this meeting. The priority, and order, was:

- Review RFC 1374 for advancement to standard status (Renwick)
- Work on a HIPPI MIB (Renwick)
- Work on Network Management and an ISIS protocol (McGowen)
- Add lower-cost short-wavelength optics to Serial-HIPPI (Toy)
- Work on Address Self-Discovery (Renwick/McGowen)
- Review HIPPI-ATM for advancement as a standard (Tolmie)
- Modify HIPPI-SC to support broadcast (Rossman)
- Work on speeds in the 8x and 10x range for future expansion of HIPPI
- Specify higher speeds as multiple 800 Mbit/s cables (Tolmie)
- Include Serial-HIPPI as an Informative Annex in HIPPI-PH (Tolmie)
- Work on a HIPPI API (Schroeder)
- Modify HIPPI-PH to allow longer cables (Tolmie)
- Specify a different connector for the present 800 Mbit/s cables (Toy)

3. Review of RFC 1374

ACTION ITEM (John Renwick of NetStar): Remind subscribers to the reflector that drafts of RFC 1374 exist for review, and that such review needs to happen fairly soon.

4. Work on HIPPI MIB

John Renwick is still working on an update to the HIPPI MIB, expect further discussion on the HIPPI reflector.

5. Work on Network Management and ISIS Protocol

Michael McGowen of Essential Communications is working on a strawman document describing portions of network management and ISIS protocol.

6. Short Wavelength Optics & Serial-HIPPI Issues

Jim Toy of Broadband Communications presented a Fiber Specification Comparison, showing how less transmit power avoids OFC (Open Fiber Control, i.e., shut off the laser if the fiber opens) problems. We can expect lower cost products using low-power CD lasers (25-30% cost reduction). It was noted that this specification is currently in conflict with Fibre Channel which uses higher power and OFC.

Question: Should the coax option be deleted from the Serial-HIPPI specification? No, some vendors have implemented this, e.g., Tera Computing.

Question: Is there any problem mixing short and long wavelength equipment and fiber? No, this won't hurt (damage) anything, it just won't work.

A motion passed to add short wavelength specs to Serial-HIPPI.

ACTION ITEM (Don Tolmie of Los Alamos): Contact David Sears at HP to get the master copy of the Serial-HIPPI specification document, for modification by the HNF.

ACTION ITEM (Don Tolmie of Los Alamos and Jim Toy of BCP): Draft words for a lock-out mechanism to the Serial-HIPPI remote loopback mode.

7. Address Self Discovery

John Renwick of NetStar has made several proposals on the HIPPI reflector. Discussion will continue on the reflector.

ACTION ITEM (John Renwick of NetStar): Check on possible existing implementations of his proposals for address self discovery.

ACTION ITEM (Michael McGowen of Essential Communications): Publish any alternative proposals for address self discovery on the reflector.

8. Review HIPPI-ATM

Don Tolmie distributed Rev 1.3 of the HIPPI-ATM specification. The differences between Revs 1.2 and 1.3 were discussed and accepted.

ACTION ITEM (Don Tolmie of Los Alamos): Send notice of HIPPI-ATM Rev 1.3 to the reflector for review.

Also, section 4.8 needs to be fleshed out (add an editor's note). Basically, this amounts to adding a proposal for striping.

9. HIPPI-SC Support of Broadcast

ACTION ITEM (George Rossman of Avaika Networking): Republish proposed HIPPI-SC changes, to support broadcast, on the e-mail reflector.

10. Higher Speed versions of HIPPI

There was a lengthy discussion of what to do about various proposals for higher speed HIPPI. The discussion focused on two categories: A 2x/4x type of increase, and an 8x/10x type of increase in speed.

In the 2x/4x category, there seems to be very little interest in making any significant changes to the existing HIPPI standard to accommodate a 2x/4x speed increase. This may cause compatibility and other problems. It was felt that this level of speed increase can easily be accomplished with multiple cables.

ACTION ITEM (Don Tolmie of Los Alamos): Draft a proposal for multiple-cable HIPPI (an extension to the current Double Wide variant).

In the 8x/10x category, there seems to be customer interest in long-range planning and development of a specification. However, there is a strong reluctance to either develop such a variant within the constraints of the current standard or to modify the current standard significantly. The result is a desire to focus on a new standard as a follow on to HIPPI.

ACTION ITEM (Tom Lane of Network Systems): See if anyone at Network Systems Corporation is willing to volunteer a position paper on 8x/10x HIPPI. (Jim Hughes ??)

Note - At the X3T11 Plenary meeting the following day, Roger Cummings the X3T11 chairman announced the formation of a Long Range Planning ad hoc group to look at similar issues. Roger proposed the following members: Ed Grivna of Cypress Semiconductor, Paul Rupert of Lawrence Livermore National Lab, John Renwick of NetStar, Bent Stovehase of HP-Canada, Don Tolmie of Los Alamos, and Shelto Van Doorn of Siemens. The meetings will be open to all interested people.

11. Serial-HIPPI as Informative Annex in HIPPI-PH

Consensus was that this is a possibility for documenting Serial-HIPPI, but is not without danger.

ACTION ITEM (Don Tolmie of Los Alamos): Look into more formal ways of documenting Serial-HIPPI.

12. Remaining discussion items

The remaining items were not discussed for lack of time, with one exception:

HIPPI API needs a concrete proposal if it is to go forward.

ACTION ITEM (Ted Schroeder of Essential Communications): Publish a HIPPI API proposal on the reflector.

Don Tolmie suggested that Technical Committee members review the Scalable Coherent Interface (SCI), ANSI/IEEE Std. 1596-1992, as a possible starting place for higher speed interfaces. SCI currently specifies 8 Gbit/s operation, but over much shorter cables.

13. Wrap-Up

The Technical Committee Meeting was adjourned at 5 PM. A short meeting summary was presented at the plenary Wrap-Up which followed.

The next HNF Technical Meeting will be held from 1-5pm, December 6th, 1994, at the Red Lion Inn, 2050 Gateway Place, San Jose, CA, phone 408-453-4000. Ed Frymoyer of HP is the host.

Attendees:

Name	Company	Phone	E-mail
Jim Toy	Broadband Communications	407-984-3671	5053081@mcimail.com
Marti Bancroft	Cray Research	503-625-2313	mfb@craywr.cray.com
Mike Barron	Essential Communications	505-823-0100	mbarron@esscom.com
Chris Olson	Loral Defense Systems	602-925-7275	olson@master.lds-az.loral.com
Don Tolmie	Los Alamos National Lab	505-667-5502	det@lanl.gov
Von Welch	National Center for Supercomputer Applications	217-244-3095	vwelch@ncsa.uiuc.edu
John Renwick	NetStar	612-943-8990	jkr@netstar.com
Sue Buchheit	Network Systems Corp	703-281-0455	76535.1134@compuserve.com
Tom Lane	Network Systems Corp		